



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of

KAYYEM

Serial No.: 09/295,691

Filed: 4/21/1999

For: *THE USE OF
MICROFLUIDIC SYSTEMS
IN THE
ELECTROCHEMICAL
DETECTION OF TARGET
ANALYTES*

Group No. 1743

Examiner: STARSIAK, JOHN S

CERTIFICATE OF MAILING

I hereby certify that this correspondence, including listed enclosures is being deposited with the United States Postal Service as First Class Mail in an envelope addressed to: Commissioner for Patents, Washington DC 20231 on:

Date:

Signature

10-25-02
Mary M. Farland

Mary McFarland

DECLARATION PURSUANT TO 37 C.F.R. § 131

Commissioner for Patents
Washington, DC 20231

Sir:

I, **Jon F. Kayyem**, do hereby declare as follows:

1. I am an inventor on the above identified patent application and am familiar with its contents.
2. I have reviewed the pending claims in this application.

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3. I am familiar with the Office Action mailed on May 31, 2002, where claim 36 was rejected under 35 U.S.C. 103(a) as being unpatentable over Segal (U.S. Patent 6,300,141) filed on March 2, 2000, claiming priority to Provisional Application No. 60/122,546, filed on March 2, 1999.

4. The basic concept of a microfluidic device for detection of target analytes, as disclosed in claim 36, was contemplated in this country prior to March 2, 1999 as evidenced by Appended Exhibit 1.

5. Appended Exhibit 1 comprises notes taken at a meeting prior to March 2, 1999. The meeting included myself, Dr. Gary Blackburn, the Director of Scientific Affairs (who took the notes), and patent counsel, Robin M. Silva and Richard F. Trecartin. These notes indicate that the combination of microfluidics with CMS technology was discussed; see arrows on page 1 and 2. In particular, the discussion of microfluidics included separation and sample preparation; see arrow on page 1.

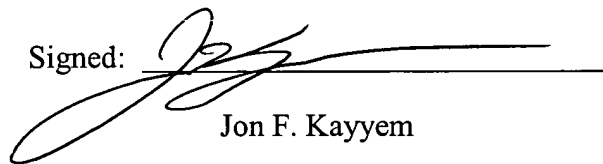
6. With particular regard to the page 2 notation, the scope of "CMS technology" is understood by me to be the electronic detection methods such as those outlined in U.S. Patent Nos. 6,096,273; 6,221,583; and, 6,232,062, and in U.S.S.N.s 08/873,597; and, 09/135,183, all filed prior to March 2, 1999. That is, we discussed a variety of different microfluidic systems to be used in conjunction with a variety of CMS systems, generally outlined in our patent applications.

7. In conclusion, the invention was completed in this country prior to March 2, 1999.

8. I declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements are made herein with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under § 1001 of Title 18 in the United States Code, and that any such willful false statements may jeopardize the validity of the application or patent issuing therefrom.

Date: 10/14/02

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Signed: 
Jon F. Kayyem

Robin & Rick, Fair 8/12/98

Strategy Mktg

Signal Processing
Sample Prep
MEMS

ECL
Hybridization
acceleration

Robin

Gold stuff
SAM stuff
hardware
software - signal processing

new chemistries

microfluidics

a) separation

b) sample prep

sample prep

Cindy's new - 2 invention (colloid)

Robin will project costs for next 12-24 months

Gold Stuff

trade secret vs patent?
should be broader than pcb

SAM stuff

Aqueous
would be very important for manufacturing

Hardware

Switching (MOX - Jerry Driscoll)
Probant unique

Signal Processing

Harmonics
phase + harmonics
change of waveform
Creager provisional 3/11/98

Roger Joener is working on application.

CJ's new chemistry

branched DNA

ferrocene polymers (filed already)

novel nucleotides

(eg Enzo alternatives)

Faj - important since we may be

a "chip" company (eg w/ Motorola)

Microfluidics

Combination w/ CMS

Faj - "one future"

the detector for microfluidics"

"cut & paste"

Sample Prep

eg Cindy prep protocol
for DNA

Cindy's album invention

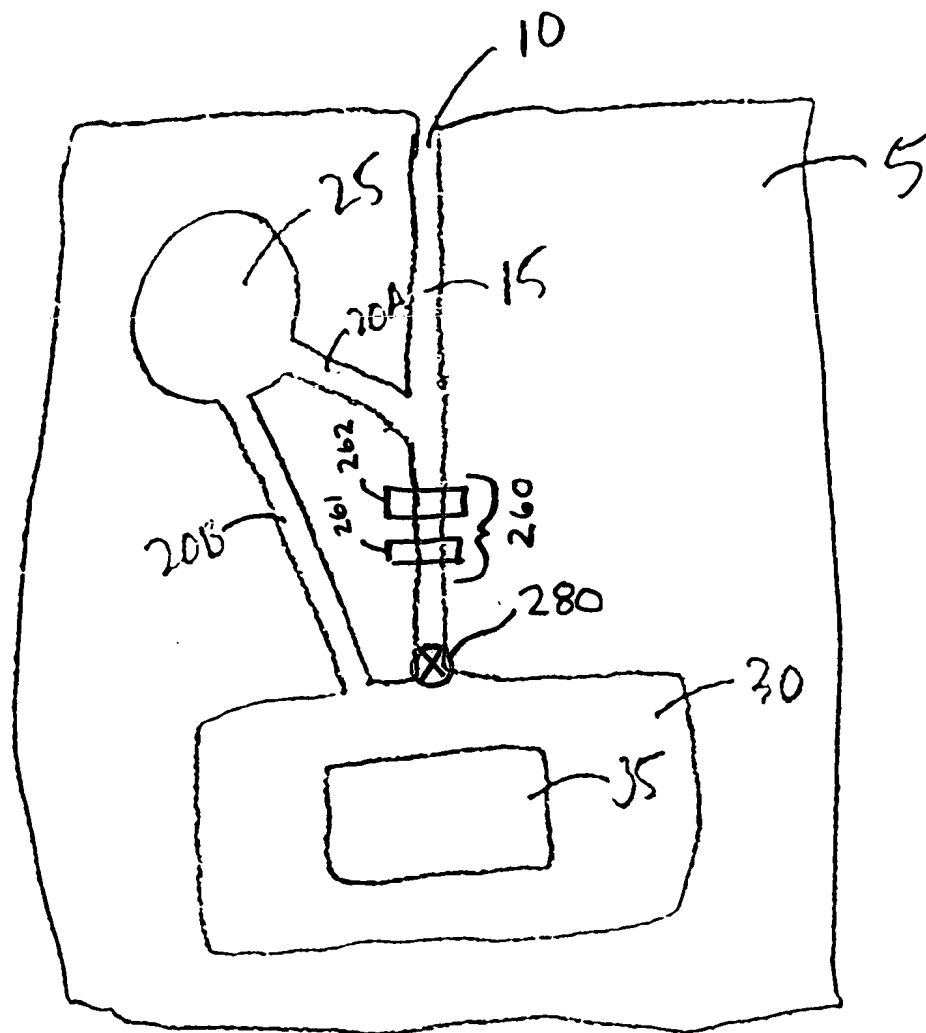


Fig 1A

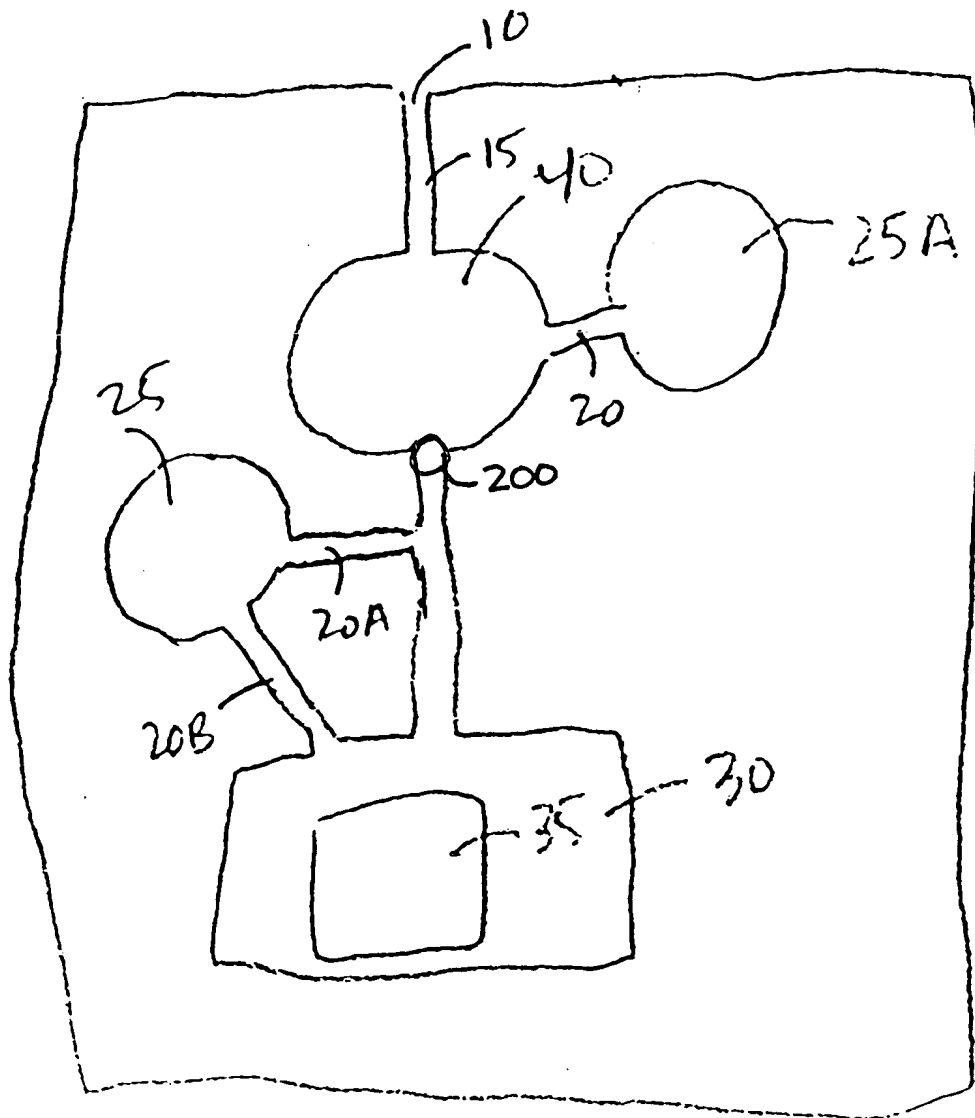


Fig 1B

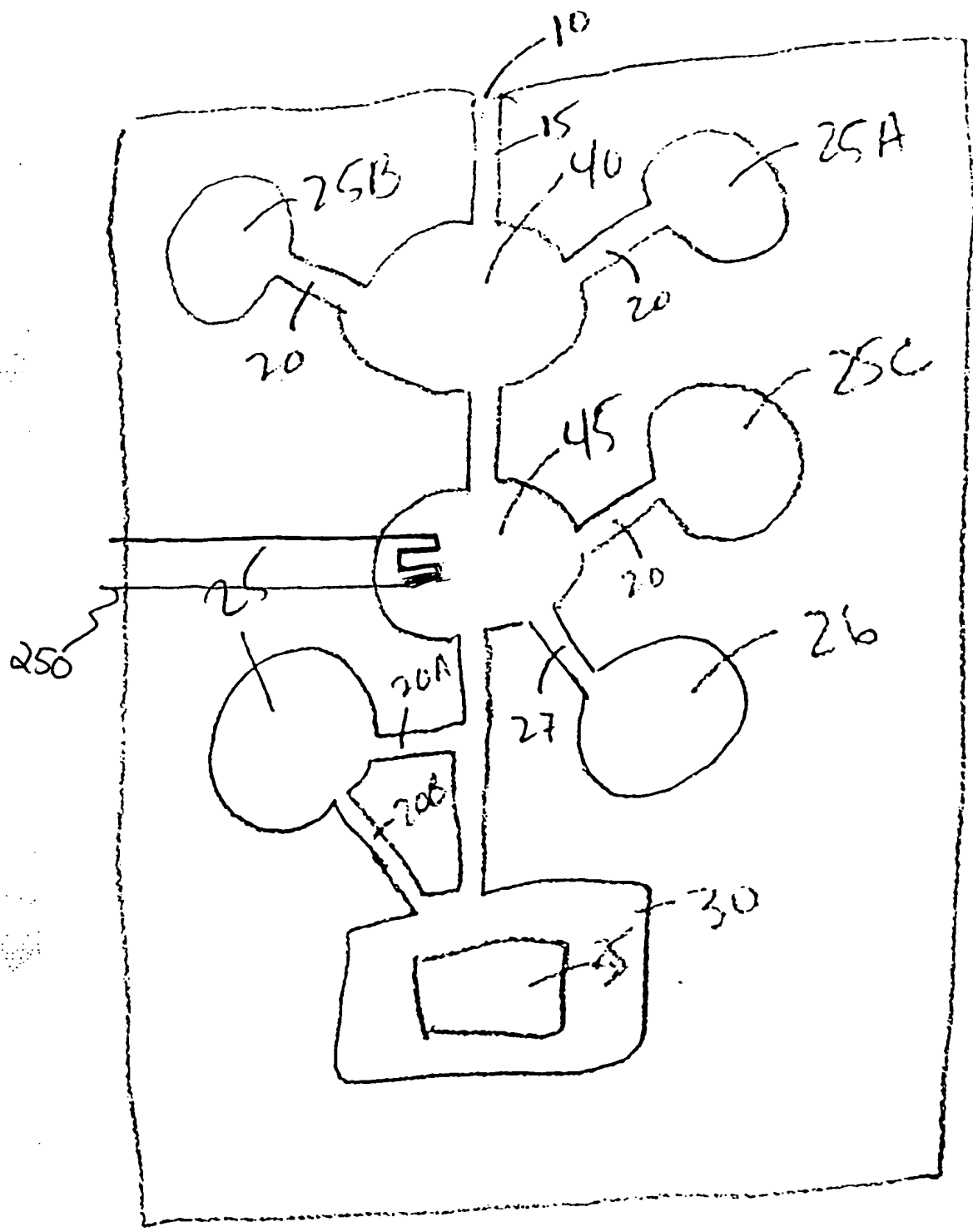


Fig 1D



FIG. 2

